

REMARKS/ARGUMENTS

Claims 1-17 are pending in the present application. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. § 102, Anticipation

The examiner has rejected claims 1 and 15 under 35 U.S.C. § 102 as being anticipated by Bellis, Jr. et al. Checkout System with a Flexible Security Verification System, (U.S. Patent 7,044,370 B2), (hereinafter “*Bellis*”). This rejection is respectfully traversed. The Examiner states:

As per claims 1 and 15, Bellis discloses a method of optimizing a value associated with a characteristic of a product stored in a first field of a security database of a self-checkout system at an optimizing time (see abstract), said security database also including a second field for storing identification information for said product, a third field for storing a last time when said value was last updated and a fourth field for storing at least one new value for said characteristic stored in said fourth field between said last time and said optimizing time (col. 10, lines 13-49), said value being used in a comparison to a second value associated with said characteristic and detected in a security area of said self-checkout system during a purchasing transaction (col. 6, line 50 to col. 7, line 29), said comparison used as a security measure to confirm that a product placed in said security area during said purchasing transaction is the same product identified by said system after said system identifies said product via identification information input by a user of said system (col. 1, lines 20-37) querying said database for products having a time difference between said optimizing time and said last time greater than a predetermined period and having at least one new value for said characteristics, wherein said query establishes a query result (col. 7, line 49 to col. 8, line 13); revising said value for each product in said query result using said new value (see claim 1).

Office Action dated March 14, 2008. pp. 2-3.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). All limitations of the claimed invention must be considered when determining patentability. *In re Lowry*, 32 F.3d 1579, 1582, 32 U.S.P.Q.2d 1031, 1034 (Fed. Cir. 1994). Anticipation focuses on whether a claim reads on the product or process a prior art reference discloses, not on what the reference broadly teaches. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983). In this case, each and every feature of the presently claimed invention is not identically shown in the cited reference, arranged as they are in the claims.

Claim 1 is as follows:

1. A method of optimizing a value associated with a characteristic of a product stored in a first field of a security database of a self-checkout system at an optimizing time, said security database also including a second field for storing identification information for said product, a third field for storing a last time when said value was last updated and a fourth field for storing at least one new value for said characteristic stored in said first field between said last time and said optimizing time, said value being used in a comparison to a second value associated with said characteristic and detected in a security area of said self-checkout system during a purchasing transaction, said comparison used as a security measure to confirm that a product placed in said security area during said purchasing transaction is the same product identified by said system after said system identifies said product via identification information input by a user of said system, said method comprising:
 - querying said database for products having a time difference between said optimizing time and said last time greater than a predetermined period and having at least one new value for said characteristic, wherein said query establishes a query result; and
 - revising said value for each product in said query result using said new value.

Under the standards of *In re Bond*, *Bellis* does not anticipate claim 1 because *Bellis* does not teach the claimed features of, “a third field for storing a last time when said value was last updated,” and “querying said database for products having a time difference between said optimizing time and said last time greater than a predetermined period.” The examiner asserts otherwise, and cites various portions of *Bellis*.

Regarding the feature of “a third field for storing a last time when said value was last updated,” the examiner believes the following portion of *Bellis* teaches the claimed feature:

Using an updating algorithm, the security information of an item stored in the database may be automatically updated by the computer software. The updating function may be applied to the security weight, height, width, length or any other characteristics of the item. Using the security weight as an example, each item's weight information stored in the database may be updated through repeated weight measurements of that particular kind of item, i.e. items with the same item code. A database having a plurality of data records may be created for temporarily storing each weight measurements for that item every time the item is scanned and weighed. After reaching a specified number of measurements, the computer algorithm may calculate a mean or average weight, or any other statistically determined characteristic of the population of the item, from the recorded weight measurements in the database. The mean weight or any other statistically determined characteristic may be assigned as the new security weight of the item or rewritten over the old security weight of the item. The computer may also calculate a new tolerance value TOL based upon the variance of the repeated measurements.

Measuring, recalculating, and re-writing the security weight and/or the TOL value of a particular item over time and/or based upon the amount of variance

noted allows the system to update itself and account for variability of the item's weight from lot to lot. For example, the computer software may have an algorithm that calculates a rolling mean weight for a can of beans based on scanning ten different cans of beans over a period of time. The rolling mean weight may be set as the new security weight in the database. When a can of beans is scanned for the eleventh time, the algorithm may drop the first data point from the calculation and only determine the mean from the second time a can of beans was scanned to the eleventh time, and so on. Hence, an item's security weight may be updated to account for subtle shifts in weight for a can of beans.

Bellis, col. 10 lines 13-49.

The cited portion of *Bellis* teaches "...after reaching a specified number of measurements, the computer algorithm may calculate a mean or average weight measuring,...recalculating, and re-writing the security weight and/or the TOL value of a particular item over time and/or based upon the amount of variance." *Bellis* teaches updating based on a number of samples or an amount of variance.

In contrast the claimed feature, "a third field for storing a last time when said value was last updated," specifically uses a timestamp value in a third field of a record to indicate when the value was last updated. *Bellis* does not teach use of such time information and therefore does not teach the feature as claimed.

With regard to the claimed feature, "querying said database for products having a time difference between said optimizing time and said last time greater than a predetermined period," the examiner believes the following portion of *Bellis* teaches the claimed feature:

Using a matching algorithm, the computer program may perform the matching by first receiving a signal ("measured-characteristic signal") from the weight scale, the item-shape sensor, or any other measuring device that measures physical characteristics of an item. The measured-characteristic signal corresponding to the weight, height, length, width, or any other physical characteristics of the item may then be compared to the stored characteristic, whose signal is retrieved from the database. As used in this description, "match" or "matches" may mean "equal" or "equals." But "match" or "matches" may also be used to indicate that the values compared are within a certain tolerance range of one another. For example, to match, the measured weight must fall within a weight-tolerance range defined by the security weight plus or minus a tolerance value (TOL). TOL is a value in unit of mass that may be associated with an item in the store. Each item, preferably, has a different TOL value set by the operator. Different TOL value may also be associated with different classes of items in the store. The weight tolerance range may be increased or decreased by multiplying TOL with a global-tolerance variable (GTV) representing a number that correlates to a desired level of security. GTV may be any number, but preferably close to 1.0. The more expensive the item, for example, the lower is the TOL value to increase security. Accordingly, depending upon the level of security desired for the item, a store personnel or manager may assign a lower or higher TOL to the item. Furthermore, a store personnel or manager may increase or decrease the overall store security by adjusting the global-tolerance variable (GTV). This global-tolerance variable proportionately affects the tolerance of all items in the store.

Bellis, col. 7 line 49 – col. 8 line 13.

Bellis teaches the creation of a tolerance variable and a global tolerance variable to be used when comparing a measured signal with a stored signal. The matching of the two signals considers whether “the values compared are within a certain tolerance range of one another.”

In contrast the claimed feature determines whether “a time difference between said optimizing time and said last time greater than a predetermined period” occurred to initiate an update. *Bellis* fails to teach consideration of such time differences to determine when and which values to update. *Bellis* fails to teach the use of “a third field for storing a last time when said value was last updated,” to be used in a query.

Bellis fails to teach storing and tracking a time value associated with characteristic values. Because *Bellis* fails to teach the storage and tracking of a time value associated with the characteristic there can be no computation as in the comparison performed in the claimed feature. Further *Bellis* fails to teach the “difference ... greater than a predetermined period. *Bellis* fails to teach or suggest the use of a predetermined period as a time based event for the processing of characteristic information.

Bellis fails to teach or suggest the query of a database for a time value associated with a characteristic to determine when to update the characteristic value. *Bellis* teaches a “rolling mean” that is updated based on samples. *Bellis* teaches updating the characteristic “over time” based on the number of samples or “based on the amount of variance” being determined. *Bellis* fails to teach querying a database for product characteristics needing updates as currently claimed. Therefore *Bellis* fails to teach the feature as claimed. *Bellis* therefore differs in structure and operation from the claimed features.

Accordingly *Bellis* fails to teach the claimed features of claim 1. Therefore in accordance with the standard of *In re Bond*, *Bellis* fails to anticipate claim 1.

With regard to claims 2-10, 12-14, 16 and 17 the examiner asserts the following:

Bellis discloses providing a database of records wherein each of said records includes a plurality of values of fields containing respective field values which characterize said products, obviously teach the time difference between the optimizing time value and the last time value, revising said value for each product in said query result using said new value (updating data records with new value (col. 5, lines 46-58)), a method wherein said physical characteristic comprises weight of said product, a storage device 562 to store all attributes for all products (see abs.).

Office Action dated March 14, 2008. p. 3.

The examiner asserts that *Bellis* “obviously teach the time difference between the optimizing time value and the last time value,” however no mention of saving and using such time values is made in the disclosure of *Bellis*. *Bellis* teaches use of number of samples and variance between

samples and saved values as determining factors. *Bellis* fails to teach any reference to time of data values being used as deterministic of when to perform updates of characteristic values. Therefore *Bellis* cannot obviously teach a time difference as suggested by the Office Action. Therefore *Bellis* fails to teach the claimed feature. *Bellis* therefore fails to teach or suggest the features of claims 2-10, 12-14, 16 and 17. In accordance with the standard of *In re Bond*, *Bellis* fails to anticipate claims 2-10, 12-14, 16 and 17.

Since claim 15 claims similar subject matter of claim 1, claim 15 is also distinguished from the teaching of *Bellis*. Further, since claims 2-14, and 16-17 depend from claims 1 and 15 respectively, the same distinctions between *Bellis* and the claimed invention in claims 1 and 15 apply equally well for these claims. Therefore, the rejection of claims 1-17 has been overcome.

Therefore, the rejection of claims 1-17 under 35 U.S.C. § 102 has been overcome.

II. Conclusion

The subject application is patentable over the cited references. Therefore, the subject application should now be in condition for allowance. Applicants invite the examiner to call the undersigned at the below-listed telephone number if, in the opinion of the examiner, a telephone conference would expedite or aid the prosecution of this application.

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Respectfully submitted,

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